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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,868	10/18/2001	Bernd Bienck	12758-025001	8008

7590
Fish & Richardson
225 Franklin Street
Boston, MA 02110-2804

EXAMINER

SOBUTKA, PHILIP

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/787,868

Applicant(s)

BIENEK ET AL.

Examiner

Philip J. Sobutka

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 64,66-68,70 and 75-77 is/are rejected.
- 7) ☒ Claim(s) 65,69,71-74,78 and 79 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/10/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Note

1. Note that any response must reflect the claim amendments made by examiners amendment in the paper mailed August 12, 2005.

Drawings

2. The drawings are objected to because, as required by 37 CFR 1.84 (n):

(n) Symbols . Graphical drawing symbols may be used for conventional elements when appropriate. The elements for which such symbols and labeled representations are used must be adequately identified in the specification. Known devices should be illustrated by symbols which have a universally recognized conventional meaning and are generally accepted in the art. Other symbols which are not universally recognized may be used, subject to approval by the Office, if they are not likely to be confused with existing conventional symbols, and if they are readily identifiable.
3. The drawings are objected to because in figure 1, 2D, 3,4,5A,5B,5C,6,and 9, the unlabelled boxes should have descriptive labels for ease of use. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary,

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the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 64,66-68,70,75-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pietzold, III et al (US 6,091,765) in view of Kautmann (DE 3010707)

Consider claim 64. Pietzold teaches a terminal for use with a mobile phone, comprising:

a transmitter stage (*Pietzold, see figure 6, item 152*);

a receiver stage (*Pietzold, see figure 6, items 150*);

a switch-over and adapter stage (*Pietzold, see figure 1,item 24*); and

a control unit that is programmable over a wireless interface to actuate the adapter stage and to set a predetermined value of the at least one functional parameter (*Pietzold see figure 1, item 18, column 1, lines 45-65, column 5, line 50 – column 6, line 22*) .

Pietzold lacks a teaching of passive structural elements in with micro switches associated with the passive structural elements, the micro switches or micro relays having a predetermined configuration for actuating the passive structural elements and having at least one functional parameter, the at least one functional parameter comprising a frequency characteristic.

Kautmann teaches a passive structural elements with micro switches for actuating the passive structures elements to control a functional parameter comprising a frequency characteristic (*Kautmann, see figures 1,2, and pages 2 and 3 of the translation where Kautmann describes the switching unit 3 controlling the frequency of the filter arrangements. Note that Kautmann's arrangement includes an algorithm for*

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calculating the switch arrangement to obtain the frequency parameter, as described in the translation on page 2, paragraphs 7 and 8).

It would have been obvious to one of ordinary skill in the art to modify Pietzold to use the electronically controlled switching arrangement of Kautmann in order to easily allow fast computer control of the programming adjustments as taught by Kautmann (see translation page 2, paragraph 6).

As to claim 66, note that Pietzold in view of Kautmann as applied to claim 64, teach wherein the control unit comprises an on/off switch for the transmitter stage and the receiver stage, wherein a switch-off signal is transmitted to the on/off switch, the switch-off signal deactivating the transmitter stage and the receiver stage, and wherein the switch-off signal is transmitted before an actuation signal is transmitted to the micro switches or the micro relays (*Pietzold teaches deactivating the transmitter and receiver during reconfiguration, see especially column 37, lines 29-60*).

As to claim 67 Pietzold in view of Kautmann as applied to claim 66, teach wherein the control unit comprises a sensing unit connected to the on/off switch, wherein a switch-on signal is transmitted to the on/off switch, the switch-on signal activating the transmitter stage and the receiver stage, and wherein the switch-on signal is transmitted after termination of a program, the program being used to set the at least one functional parameter (*Pietzold teaches deactivating the transmitter and receiver during reconfiguration, see especially column 37, lines 29-60*).

As to claim 68, Pietzold in view of Kautmann as applied to claim 64 teaching of at least one of the micro switches or micro relays are integrated with passive structural

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elements on a substrate with a high dielectric constant. *(Pietzold teaches fabricating all of the programmable hardware elements, which would include Kautman's switches on a substrate since less space is required as taught on column 8, lines 54-68).*

As to claim 70, Pietzold in view of Kautmann as applied to claim 64, also teaches wherein the control unit comprises: a topology memory for storing a topology of the passive structural elements, the topology corresponding to the micro switches or the micro relays; an algorithm memory for storing code to affect a calculation algorithm, the calculation algorithm for calculating a predetermined value of the at least one functional parameter based on the topology; and a calculation stage which uses the calculation algorithm to: determine a micro switch arrangement and or a micro relay arrangement; and obtain the predetermined value of the at least one functional parameter. *(Note that Kautmann's arrangement includes an algorithm for calculating the switch arrangement to obtain the frequency parameter, as described in the translation on page 2, paragraphs 7 and 8).*

Consider claim 75. Pietzold teaches a method for operating a terminal associated with a mobile phone, the method comprising:

transmitting an actuation signal from a transmitter stage to a receiver stage *(Pietzold teaches over the air programming, i.e. from a transmitter to the devices receiver see figure 1, item 18, column 1, lines 45-65, column 5, line 50 – column 6, line 22, column 46, lines 10-20) and*

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and utilizing sequences within the activation signal for deactivating transmitting operations of the transmitter stage and receiving operations of the receiver stage (*Pietzold teaches deactivating the transmitter and receiver during reconfiguration, see especially column 37, lines 29-60*);

Pietzold lacks a teaching of the actuation configuration signal being transmitted to a micro switch configuration.

Kautmann teaches a passive structural elements with micro switches for actuating the passive structures elements to control a functional parameter comprising a frequency characteristic (*Kautmann, see figures 1,2, and pages 2 and 3 of the translation where Kautmann describes the switching unit 3 controlling the frequency of the filter arrangements. Note that Kautmann's arrangement includes an algorithm for calculating the switch arrangement to obtain the frequency parameter, as described in the translation on page 2, paragraphs 7 and 8*).

It would have been obvious to one of ordinary skill in the art to modify Pietzold to use the electronically controlled switching arrangement of Kautmann in order to easily allow fast computer control of the programming adjustments as taught by Kautmann (see translation page 2, paragraph 6). Note that the arrangement of Pietzold in view of Kautmann would protect the micro switch arrangement when powered off as well as conserve power.

As to claim 76, Pietzold in view of Kautmann as applied to claim 75, further comprising automatically reactivating the transmitter stage and the receiver stage after a termination of a program, the program being used to set a functional parameter

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associated with the micro switch configuration (*Pietzold teaches reactivating the transmitter and receiver during reconfiguration, see especially column 37, lines 29-60*).

As to claim 77 Pietzold in view of Kautmann teach the method of claim 75, further comprising: determining a topology of passive structural elements in the transmitter stage or receiver stage, the topology corresponding to the micro switches or the micro relays; storing, in a topology memory, a calculation algorithm, the calculation algorithm for calculating a predetermined value of the functional parameter based on the topology; and determining, based on the calculation algorithm, a micro switch arrangement and a micro relay arrangement. . (*Note that Kautmann's arrangement includes an algorithm for calculating the switch arrangement to obtain the frequency parameter, as described in the translation on page 2, paragraphs 7 and 8*).

Allowable Subject Matter

7. Claims 65,69,71-74,78,79 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Consider claim 65. The nearest prior art as shown in Kautmann and Pietzold fail to teach the terminal of claim 64, wherein the transmitter stage, the receiver stage, or the switch-over and adapter stage comprises a plurality of micro motors, the plurality of micro motors for mechanically adjusting the passive structural elements and having a control connection to the control unit.

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Consider claim 69. The nearest prior art as shown in Kautmann and Pietzold fail to teach the terminal of claim 65, wherein the micro motors are integrated with the passive structural elements on a substrate with a high dielectric constant.

Consider claim 71. The nearest prior art as shown in Kautmann and Pietzold fail to teach the terminal of claim 70, wherein the topology memory is configured to store a position and a topology that corresponds to actuator stages of a micro motor.

Consider claim 72. The nearest prior art as shown in Kautmann and Pietzold fail to teach the terminal of claim 70, wherein the calculation stage is configured to calculate an actuation signal for a micro motor, the actuation signal being use to obtain the predetermined value of the at least one functional parameter.

Consider claim 73. The nearest prior art as shown in Kautmann and Pietzold fail to teach the terminal of claim 64, wherein the control unit comprises: a configuration memory for storing a plurality of switching matrices, each switching matrix being assigned a value of the at least one functional parameter; and a pointer stage to associate the configuration memory with the value of the at least one functional parameter.

Consider claim 78. The nearest prior art as shown in Kautmann and Pietzold fail to teach the method of claim 77, wherein the topology memory stores a position and a topology corresponding to actuator stages of the micro motor.

Consider claim 79. The nearest prior art as shown in Kautmann and Pietzold fail to teach the method of claim 77, wherein the determining is performed by a calculation stage, the calculation stage calculating an actuation signal for the micro motor, and the

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actuation signal for use in obtaining the predetermined value of the functional parameter.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached Monday through Friday from 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4711.

9. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Philip J. Sobutka". The signature is fluid and cursive, with the first name "Philip" written in a larger, more prominent script than the last name "Sobutka".

**PHILIP J. SOBUTKA
PATENT EXAMINER**

Philip J Sobutka

(571) 272-7887